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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,115	08/25/2003	Fujio Akahane	Q77135	9845

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EXAMINER

CRANE, DANIEL C

ART UNIT PAPER NUMBER

3725

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No.	Applicant(s)	
	10/647,115	AKAHANE ET AL	
	Examiner	Art Unit	
	Daniel C. Crane	3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-9, 11-15, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 6, 10, 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

REJECTION OF CLAIMS ON FORMAL MATTERS

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Failure to provide antecedence for “second work of the first forging work” renders the subject matter indefinite. This subject matter has been examined as best understood.

REJECTION OF CLAIMS OVER PRIOR ART

Claims 1-5, 7-9, 11-12, 15 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Soga (6,490,790). See Figures 2A-2D where the first punch 1, 2 is operated to perform the first forging work in Figure 2B and a second punch 6₁, 7₁, 6₂, 7₂ is operated to perform a second forging work while the first forming punch is held at its maximum stroke. The second punch forms at least two perforations. Since the first member is pressed and the second member is perforated, the first member has a “higher minuteness” than the second member. The perforations, the second member, function as openings or positioning members when the work piece is assembled into operable condition (see Figure 1A where the connecting rod is provided with openings for the crankshaft and the piston pin). Claim 19 has been examined as best understood. In this regard, the first forging work is performed by die 1, which has multiple surface configurations. Accordingly, the first forging work forms first and second works, each of the works having a different configuration imparted to the plate member W’.

Claims 13-14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soga (6,490,790). Soga does not indicate the sizing or particular material. It is maintained that the skilled artisan within the manufacturing arts would have recognized the adaptability of Soga's teaching to any material without deviating from the basic process steps. Furthermore, the skilled artisan would have also recognized that the pitch, or distance would be dictated based upon specific use. Clearly, the skilled artisan would have realized that the sizing of Soga's product would be met depending upon the size of the overall shape of the product.

RESPONSE TO APPLICANT'S COMMENTS

Applicant's comments have been carefully considered. As to the application of Soga against the claims, this is considered proper. Contrary to applicant's comments the second punches 6₁, 6₂, 7₁ and 7₂ are actuated "while keeping the first punch at the maximum stroke position". This is clearly evident in Figures 2B and 2C where the first punch 1 has been actuated to its maximum stroke followed by an actuation of the second punches 6₁, 6₂, 7₁ and 7₂ to produce the thinned areas in the workpiece shown in Figure 2C. Applicant's argument that Soga's second punch is actuated "before" the first punch reaches a maximum stroke position is unsupported by the claimed language of claim 1. The fact that the second punches are moved with the first punch into their ready position shown in Figure 2B does not preclude the fact that the second punches are actuated "while keeping the first punch at the maximum stroke position". In this regard, the second punches are actuated to effect selected shaping of the preliminarily shaped workpiece, which has been shaped by the first punch, after the first punch has been

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actuated to produce the preliminary shaping operation. A comparison of Figures 2B and 2C makes this evident.

As to claim 7, the added limitation that a “predetermined delay is provided between the end of the first forging work and the beginning of the second forging work: is inherent and further evident from Soga’s description at column 3, lines 46-49. A sequence in the forging operations is foreseen because as the operation moves from the Figures 2B showing, Soga states that “(t)hen, as shown in FIG. 2C, the punches 6₁, 7₁ on the side of the upper die 1 are forced down and, also, the punches 6₂, 7₂ on the side of the lower dies 1 are forced up, whereby the second step of forging is performed” (emphasis added). Accordingly, a sequence in the forging is envisioned with a delay being inherent because of the “then” clause. These comments similarly apply to claim 20.

WITHDRAWAL OF NONELECTED CLAIMS

Claim 16 stands withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 25, 2005.

INDICATION OF ALLOWABLE SUBJECT MATTER

Claims 6, 10, 17 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

FINAL OFFICE ACTION

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

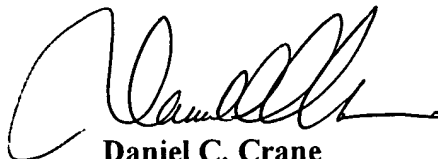
INQUIRIES

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner D. Crane whose telephone number is **(571) 272-4516**. The examiner's office hours are 6:30AM-5:00PM, Tuesday through Friday. The examiner's supervisor, Mr. Derris Banks, can be reached at **(571) 272-4419**.

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Documents related to the instant application may be submitted directly to the examiner at the FAX no. (571) 273-4516. Applicant(s) is(are) reminded to clearly mark any transmission as "DRAFT" if it is not to be considered as an official response. The Office Facsimile Center number is (571) 273-8300.

DCCrane
August 20, 2005



Daniel C. Crane
Primary Patent Examiner
Group Art Unit 3725